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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,876	09/29/2003	Shazia Sadiq	13909-115001 / 2003P00187	7312
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EXAMINER				
PATR, JUSTIN				
ART UNIT		PAPER NUMBER		
3623				
NOTIFICATION DATE		DELIVERY MODE		
06/10/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

### Office Action Summary

**Application No.**

10/671,876

**Applicant(s)**

SADIQ ET AL.

**Examiner**

JUSTIN PATS

**Art Unit**

3623

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-26 and 31-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-26, 31-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/7/09 has been entered, in which Applicant amended claims 15 and 31. Claims 15–26, and 31–48 are pending in this action and have been rejected below.

***Response to Amendment***

2. The rejection of claims 15–26 and 31–40 under 35 U.S.C. 101 is hereby withdrawn in light of Applicant's amendments of 4/7/09.
3. The rejection of claim 15 under 35 U.S.C. 112, ¶ 2, is hereby withdrawn in light of Applicant's amendments of 4/7/09.
4. The rejection of claim 23 under 35 U.S.C. 112, ¶ 1, is hereby removed.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 15-22, 24-26 and 31-48 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while showing adequate written description for simplification by redundancy or transitivity, does not reasonably provide written description to all other methods of constraint simplification.

The claim attempts to cover all possible forms of simplification of constraints, but does not provide written description in the specification for any type of simplification other than those two mentioned in claim 23. Because other potential (and more complex) forms of simplification exist (but are not disclosed by the specification), it is unclear whether the Applicant actually possessed the claimed invention at the time of filing. For example, cyclical constraints occur, but Applicant does not address how to make and/or use the invention to simplify the constraint specification with cyclical tasks. The Examiner suggests that claim 23 be rolled into claim 15 (and their counterparts) in order to overcome this rejection.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 15-26 and 31-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shazia Sadiq et al., "Pockets of Flexibility in Workflow Specification," Proceedings of the 20th International Conference on Conceptual Modeling, Lecture Notes in Computer Science, 2224, pp. 513-526 (H.S. Kunii, et al., eds. 2001) in view of Ribeiro et al., *Security Policy Consistency*, IST/INESC, Lisbon, Portugal, 30 Jun 2000, pg. 1-13 [hereinafter Ribeiro].

10. As per claims 15-26 and 31-48, Sadiq discloses all of the limitations as pointed out in the previous Office action mailed July 3, 2008 (not contested by Applicant), but fails to explicitly disclose:

simplifying a specification of the constraints; and

an apparatus comprising a computer readable medium, storage of data in the computer readable medium, and reading therefrom so as to cause the apparatus to execute the steps of the claimed invention.

As per the first limitation, Ribeiro teaches simplifying a specification of the constraints in the analogous art of constraint management (Ribeiro, pg. 2, **2 Constraint Handling Rules**, discussing simplification rule implementation process; *see also* Fig. 2). As per the second limitation, Ribeiro also teaches this (pg. 3, “PCV is composed by five layers (Figure 2). The first layer is the CHR symbolic solver engine, which is the only layer not comprised of CHR rules.”; Fig. 2, 1<sup>st</sup> layer, solver engine; pg. 9, “These constraints can then be further simplified by the rule of the consistency engine.”; pg. 6, “The properties of each external entity depends heavily on the platform (operating system, workflow engine) implementing it.”; pg. 5, “Without further assumptions the program composed by the rules in Figure 5 . . .”; pg. 5, “The CHR solver verifies the constraint store, before introducing new constraints, to prevent the existence of multiple copies of the same constraint in the constraint store. Membership constraints are never removed from the constraint store. Meet constraints cannot be added to the constraint store, by any program’s rule.”).

It would have been obvious to one of ordinary skill in the art to modify Sadiq to include the teaching of Ribeiro because the claimed invention is merely a combination of old elements,

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and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.



***Response to Arguments***

11. Applicant's prior art arguments with respect to claims 15–26, and 31–48 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant argues that the rejection of claims 15–26, 31–48 under 35 U.S.C. 112, 1<sup>st</sup> paragraph is improper because the Examiner failed to address the appropriate standard for enablement is whether undue or unreasonable experimentation is required to practice the invention via significant use of the Wands factors. In response, the Examiner respectfully disagrees as to the 112, 1<sup>st</sup> paragraph rejection of claims 15–22, 24–26, 41–38. Claim 23 is no longer rejected under 35 U.S.C. 112, 1<sup>st</sup> paragraph. The issue here is one of written description rather than enablement. The written description requirement ensures that the inventor had possession, as of the filing date of the application, of the specific subject matter claimed. Possession is shown by describing the invention, with all its claimed limitations. Although the Applicant does not have to describe exactly the subject matter claimed, the description must clearly allow persons skilled in the art to recognize that the applicants invented what is claimed.

Here, although Applicant has claimed every type of constraint simplification, its specification merely discloses simplification with respect to redundancy or transitivity. There is no explicit mention of other simplification types. Furthermore, there is no indication that (1) all other constraint simplification types are old and well known in the art, or (2) Applicant's description, as originally filed, inherently possessed or required all other constraint simplification types. Therefore, the rejection under 35 U.S.C. 112, 1<sup>st</sup> paragraph, is maintained.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A. Heydon et al., U.S. Pat. 6,081,268 (disclosing a method for ignoring redundant constraints in a software program).

B. Vijayan and Tsay, *Floorplanning by Topological Constraint Reduction*, IBM Research Division, IEEE 1990, pg. 106–109 (disclosing a method of removing both strong redundant and transitive redundant constraints in a floorplanning process).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN PATS whose telephone number is (571)270-1363. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on 571-272-6738. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUSTIN PATS/  
Examiner, Art Unit 3623

/Andre Boyce/  
Primary Examiner, Art Unit 3623